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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,392

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

PAPER NUMBER

3683

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,392	Applicant(s) KAHRS ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made in the remarks filed July 8, 2008.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 6, 8-10, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Throne-Booth.

Re-claims 1 and 2, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle, comprising: regulating the acceleration (or deceleration) of the rail vehicle as a function of its velocity (see figure 1, wherein as the velocity and/or deceleration vary from the desired pattern, s shown by the broken lines, an increase or decrease in deceleration is carried out, column 5 lines 1-36), the acceleration (or deceleration) is regulated to a set point acceleration (as represented by the solid line) which is proportional to the velocity.

Re-claims 3 and 5, the drive torque is controlled within predefined limits by unit 24.

Re-claim 6, a vehicle value K is taken into consideration when determining deceleration.

Re-claims 8 and 15, a velocity signal is received from sensor 14.

Re-claim 9, computer 10 determines deceleration from travel and velocity signals, see column 2 lines 45-47.

Re-claim 10, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle which is equipped with a drive, the method which comprises: measuring a velocity of the

Art Unit: 3683

rail vehicle (using device 14); upon receiving a braking command, controlling an acceleration (or deceleration) of the rail vehicle as a function of the velocity by a closed-loop control process, and thereby regulating the acceleration to a set point acceleration (solid line in figure 1) that is proportional to the velocity.

Re-claim 16, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle which is equipped with a drive, the method which comprises: measuring a velocity of the rail vehicle (from device 14); determining an acceleration of the rail vehicle by forming a first derivative of the velocity (see column 2 lines 45-47); controlling the acceleration of the rail vehicle by a closed-loop control process to a set point acceleration that is proportional to the velocity.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 3683

6. Claims 4, 7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Throne-Booth in view of Anderson.

Re-claims 4 and 11, Throne-Booth fails to teach a PI controller used to control the torque. Anderson teaches a PI controller for providing a tractive effort request to the motor, see column 3 lines 24-26, as is common in the art. It would have been obvious to one of ordinary skill in the art to have provided the system of Throne-Booth with a PI controller as taught by Anderson, thereby providing a precise control signal for controlling the drive motor.

Re-claims 7 and 14, Throne-Booth fail to specify the vehicle values when determining any needed additional torque. Anderson teaches an apparatus taking into consideration vehicle mass (including passenger weight, see column 4 lines 59-68) when determining a required brake torque. It would have been obvious to one of ordinary skill in the art when having determined the drive torque in the system of Throne-Booth to have taken vehicle mass into consideration as taught by Anderson, thereby bringing the rail vehicle to a safe and steady stop.

Re-claims 12 and 13, the drive torque is controlled within predefined limits by unit 24; a vehicle value K is taken into consideration when determining deceleration.

Response to Arguments

7. Applicant's arguments filed July 8, 2008 have been fully considered but they are not persuasive. The set point acceleration (or deceleration) is interpreted as the solid line of figure 1. The actual acceleration (or deceleration) is the broken line of figure 1. This value is regulated to the set point value. In that as the actual value changes with respect to the set point, a correction is undertaken, thereby regulating the actual value back to the set point value. With regards to the acceleration being proportional to the velocity. It is noted that acceleration and velocity are

Art Unit: 3683

interrelated and that as acceleration changes so does velocity, and vice versa. As such, it is the opinion of the examiner that one can broadly interpret and define a proportional relationship between the two values. The remarks appear to be directed to a specific proportionality, i.e. directly proportional. However, the claim language is not specific in this regard, and merely recites the phrase proportional. In addition the disclosure fails to support this argument. The disclosure states that the "set point acceleration can also be proportional to the velocity for individual sections (route sections or travel time periods) which follow one another". It is the opinion of the examiner that since the disclosure fails to specify the limits of this time period that one can take a relatively small time period on a generated curve and determine a proportional relationship between the velocity and acceleration. This appears to be the position of the applicant in the instant application. As such it would appear that the remarks are more specific than the claim language. The rejection is hereby maintained.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 3683

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128.

The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3683

August 29, 2008